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Cor	mplete if Known	
Application Number ·	10/695,600	
Filing Date	10/28/2003	
First Named Inventor	Steindler et al.	
Art Unit	1632	
Examiner Name		
Attorney Docket Number	7203-8	

PTO/SB/08A (08-03)

			U. S. PATEN	T DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
145		US- 5,411,883	05/02/1995	Boss et al.	
16C		US- 5,753,506	05/19/1998	Johe	
120		US- 5,851,832	12/22/1998	Weiss et al.	
11)		US- 5,891,636	04/06/1999	Van Gelder et al.	
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		FORE	IGN PATENT DOC	JMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
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147		WO98/30678	01/07/1998	Steindler		
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Sheet	1	of	4	Attorney Docket Number	7203-8

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
195		ALTMAN, J. "Are New Neurons Formed in the Brains of Adult Mammals?" Science, 135:1127-1128, 1962.	
145	ļ	ALVAREZ-BUYLLA et al., "Neuronal Stem Cells in the Brain of Adult Vertebrates," Stem Cells 13:263-272, 1995.	
195		ANDERSON et al., "Neurogenesis in Adult Vertebrate Spinal Cord in Situ and in Vitro: A New Model System," Ann. N. Y. Acad. Sci., 457:213-233, 1985.	
195		BRUSTEL et al., "Host-Guided Migration Allows Targeted Introduction of Neurons into the Embryonic Brain," Neuron, 15:1275-1285, 1995.	
145		CATTANEO et al., "Proliferation and Differentiation of Neuronal Stem Cells Regulated by Nerve Growth Factor," Nature, 347:762-765, 1990.	
195		CHIASSON et al., "Adult Mammalian Forebrain Ependymal and Subependymal Cells Demonstrate Proliferative potential, But Only Subependymal Cells Have Neural Stem Cell Characteristics," J. Neurosci., 19:4462-4471, 1999.	
144		DOETSCH et al., "Subventricular Zone Astrocytes Are Neural Stem Cells in the Adult Mammalian Brain," Cell, 97:703-716, 1999.	
135		FILLMORE et al., "A Novel Method to Culture the Subependymal Zone of the Adult Rodent Reveals Immature Neurons That Prefer an Environment Rich in Extracellular Matrix Molecules," Neurosci Abs., 21:1528, 1996.	
195		FRIEDRICH et al., Promotor Traps in Embryonic Stem Cells: A Genetic Screen to Identify and Mutate Developmental Genes in Mice," Genes Dev., 5:1513-1523, 1991.	
195		GAGE et al., "Isolation, Characterization and Use of Stem Cells From The CNS," Ann. Rev. Neurosci., 18:159-192, 1995.	

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
199		GATES et al., "Astrocytes and Extracellular Matrix Following Intracerebral Transplantation of Embryonic Ventral Mesencephalon or Lateral Ganglionic Eminence," Neuroscience, 74:579-597, 1996.	4
195		GATES et al., "Cell and Molecular Analysis of the Developing and Adult Mouse Subventricular Zone of the Cerebral Hemispheres," J. Comp. Neurol., 361:249-266, 1995.	
199		GRITTI et al., "Multipotential Stem Cells From the Adult Mouse Brain Proliferate and Self-Renew in Response to Basic Fibroblast Growth Factor," J. Neurosci., 16:1091-1100, 1996.	
195		HERINGTON, A., "Effect of Disulfide-Bond Reducing Agents on the Specific Binding of Growth Hormone to Microsomal Membrane Preparations from Rabbit Liver," Biochem. Pharmacol., 35(8):1359-1364, 1986.	
195		JANKOVSKI et al., "Subventricular Zone-Offactory Bulb Migratory Pathway in the Adult Mouse: Cellular Composition and Specificity as Determined by Heterochronic and Heterotopic Transplantation," J. Comp. Neurol., 371:376-396, 1996.	
195		JOHANSSON et al., "Identification of a Neural Stem Cell in the Adult Mammalian Central Nervous System," Cell 96:25-34, 1999.	
145		KIRSCHENBAUM et al., "Brain-Derived Neurotrophic Factor Promotes the Survival of Neurons Arising from the Adult Rat Forebrain Subependymal Zone," Proc. Nat'l. Acad. Sci., USA, 92:210-214, 1995.	
195		KIRSCHENBAUM et al., "In Vitro Neuronal Production and Differentiation by Precursor Cells Derived from the Adult Human Forebrain," Cerebral Cortex, 6:576-589, 1994.	
195		KLEIN et al., "Tenascin Is a Cytoadhesive Extracellular Matrix Component Of The Human Hematopoitic Microenvironment," J. Cell Bio., 123:1027-1035, 1993.	
195		KUKEKOV et al., "A Nestin-Negative Precursor Cell From The Adult Mouse Brain Gives Rise To Neurons And Glia," Glia, 21:399-407, 1997.	

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STA	STATEMENT BY APPLICANT		First Named Inventor	Steindler et al.				
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195		LAROCHELLE et al., "Identification of Primitive Human Hematopoietic Cells Capable of Repopulating NOD/SCID Mouse Bone Marrow: Implications for Gene Therapy," Nature Med., 2:1329-1337, 1996.	
45		LAYWELL et al., "Brain Marrow II: In Vivo and in Vitro Studies of Neurogenesis in the Adult Human Subependymal Zone and Hippocampus," Neurosci Abs., 232:297, 1997.	
195		LEVINSON et al., "Both Oligodendrocytes and Astrocytes Develop from Progenitors in the Subventricular Zone of Postnatal Rat Forebrain," Neuron, 10:302-212, 1993.	
199		LUSKIN, "Restricted Proliferation and Migration of Postnatally Generated Neurons Derived from the Forebrain Subventricular Zone," Neuron, 11:173-189, 1993.	
135		MENEZES et al., "Expression of Neuron-Specific Tubulin Defines a Novel Population in the Proliferative Layers of the Developing Telencephalon," J. Neurosci., 14:5399-5416, 1994.	
135		MOLOWNY et al., "Reactive Neurogenesis During Regeneration of the Lesioned Medical Cerebral Cortex of Lizards," Neuroscience, 68:823-836, 1995.	
196		MORSHEAD et al., "Neural Stem Cells in the Adult Mammalian Forebrain: A Relatively Quiescent Subpopulation of Subeperldymal Cells," Neuron, 13:1071-1082, 1994.	
194		POTTEN et al., "Stem Cells: Attributes, Cycles, Spirals, Pitfalls and Uncertainties Lessons for and From the Crypt," Development, 110:1001-1020, 1990.	
195		REYNOLDS et al., "Clonal and Population Analyses Demonstrate That an EGF-Responsive Mammalian Embryonic CNS Percursor is a Stem Cell," Dev. Biol., 175:1-13, 1996.	
195		REYNOLDS et al., "Generation of Neurons and Astrocytes from Isolated Cells of the Adult Mammalian Central Nervous System," Science, 255:1707-1710, 1992.	

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CONSCIO	to la form 1443/10			Application Number	10/695,600	
INFORMATION DISCLOSURE				Filing Date	10/28/2003	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Steindler et al.	
				Art Unit	1632	
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Sheet	4	of	4	Attorney Docket Number	7203-8	

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15		REYNOLDS et al., "A Multipotent EGF-Responsive Striatal Embryonic Progenitor Cell Produces Neurons and Astrocytes," J. Neurosci., 12:4565-4574, 1992.	
195		RICHARDS et al., "De Novo Generation of Neuronal Cells from the Adult Mouse Brain," Proc. Natl. Acad. Sci. USA, 89:8591-8595, 1992.	
145	•	STEINDLER et al., "The Subependymal Zone: 'Brain Marrow'," Prog. Brain Res., 108:349-363, 1996.	
135		THOMAS et al., "Young Neurons From the Adult Mouse Subependymal Zone Proliferate and Migrate Along an Astrocyte, Extracellular Matrix-Rich Pathway," Glia:17:1-14, 1996.	
195		VESCOVI et al., "bFGF Regulates the Proliferative Fate of Unipotent (Neuronal) and Bipotent (Neuronal/Astroglial) EGF-Generated CNS Progenitor Cells," Neuron, 11:951-966, 1993.	
145		WEISS et al., "Multipotent CNS Stem Cells are Present in the Adult Mammalian Spinal Cord and Ventricular Neuroaxis," J. Neurosci., 16:7599-7609, 1996.	
195		WEISS et al., "Is There a Neural Stem Cell in the Mammalian Forebrain?" Trends Neurosci., 19:387-393, 1996.	
193	YODER et al., "Matrix molecule Interactions with Hematopoietic Stem Cells," Exp. Hematol., 23:961-967, 1995.		
195		ZERLIN et al., "Early Patterns of Migration, Morphogenesis, and Intermediate Filament Expression of Subventricular Zone Cells in the Postnatal Rat Forebrain.' J. Neurosci. , 15:7238-7249, 1995.	
			

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